

NOTES ON BUTLER'S GARTER SNAKE.

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THE garter snakes of North America constitute one of the most difficult groups with which the ophiologist has to deal. The geographical variation is recognized to be excessive, while at the same time the individual variation is so great as to obscure the boundaries between the species. The result is that there is a great diversity of opinion among authors as to the number of species and the proper limitation of the forms, and while one is inclined to recognize a long series of species, another will only allow a very limited number indeed, though admitting numerous "varieties," at least of some of the species.

While undoubtedly many a slight variety, or even individual freak, has been designated as a species, on the other hand, some of the most distinct species have suffered degradation to mere varieties or subspecies.

The *Thamnophis butleri* of Cope is an example of this. In 1889 Prof. Cope described a single specimen from Richmond, Ind., under the above name, dedicating it to Amos W. Butler. In describing it he stated expressly that "it is remarkably distinct from everything which occurs in the United States, and has only a superficial resemblance to the *E. flavilabris*, Cope, of Mexico." This statement alone should have prevented it from ever becoming associated with *Thamnophis sirtalis* as a subspecies until additional material should establish the incorrectness of Prof. Cope's standpoint, who, having himself endeavored to subordinate the various binominals under other forms as trinominals, would have been able to discover the relationship with *T. sirtalis*, if such relationship existed. But no such additional material has been forthcoming.

It is therefore with great satisfaction that I announce that a second specimen has recently been obtained and added to the collection of the National Museum. It was collected by Mr. P. H. Kirsch, of the U. S. Fish Commission, at Cedar Creek, Waterloo, Ind., on July 17, 1893. This specimen, No. 21692 U.S.N.M., corroborates everything Prof. Cope said about the species in the original description and sub-

stantiates the characters relied upon for its separation. The number and size of the temporals (1+1) is the same, and the lateral stripe involves distinctly the second, third, and fourth scale rows. The size and shape of the head is also quite characteristic, it being remarkably small and conical. Moreover, the eye is proportionately much smaller than in any of our *Thamnophis* species, with the exception of *T. leptcephalus* and *T. vagrans*.

This smallness of the eye is so striking, and it reminds one so much of the last-mentioned species, that I have a strong suspicion that the specimen which E. W. Nelson collected near Chicago, Ill., in 1874, and identified with *T. vagrans*,* was, in reality, a third specimen of the rare *T. butleri*, about the geographical range of which we can at present only guess. It is almost needless to add that *T. vagrans* does not occur in Illinois.

For the sake of completeness I add the synonymy of the species which is the subject of the present article.

1889.—*Eutania butleri*, COPE, Proc. U. S. Nat. Mus., XI, 1888, p. 399.

1892.—*Eutania butlerii*, COPE, Proc. U. S. Nat. Mus., XIV, 1891, p. 651.—*Eutainia butlerii*, HAY, Batr. Rept. Indiana, p. 120 (1892).

1893.—*Tropidonotus ordinatus* var. *butleri*, BOULENGER, Cat. Snakes Brit. Mus., I, p. 212.

* See Davis and Rice, Bull. Chicago Acad. Sci., I, iii, 1883, p. 30.